

REMARKS

Claims 3 and 12-30 are all the claims pending in the application. By this Amendment, Applicant cancels claims 1, 2, and 4-11. In addition, Applicant adds claims 13-30.

Preliminary Matters

As a preliminary matter, Applicant thanks the Examiner for initialing the references listed on Form PTO-1449 submitted with the Information Disclosure Statement filed on February 16, 2001. In addition, Applicant thanks the Examiner for entering the Preliminary Amendment filed on September 25, 2000. Finally, Applicant thanks the Examiner for accepting the drawings filed on September 25, 2000, for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority document was received.

Summary of the Office Action

The Examiner has objected to the specification, and claims 5, 7, 9-11. In addition, the Examiner rejected claims 1, 6, 8, and 9 under 35 U.S.C. § 103(a). Finally, the Examiner indicated that claims 2-5, 7, 10, and 11 contain allowable subject matter and that claim 12 is allowed.

Specification

The Examiner objected to the Specification for minor typographical errors. Applicant herein amends the specification to fix the minor errors. In view of these amendments to the specification, Applicant respectfully requests the Examiner now to withdraw this objection.

Claim Objections

The Examiner objected to claims 5, 7, and 9-11 because of minor informalities. These claims have been canceled. Therefore, this objection is literally moot.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 6, 8, and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,159,254 to Teshima (hereinafter “Teshima”) in view of U.S. Patent No. 4,558,265 to Hayashida et al. (hereinafter “Hayashida”). Claims 1, 6, 8, and 9 have been canceled. Therefore, this rejection is literally moot.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claim 12 is allowed and that claims 2-5, 7, 10, and 11 contain allowable subject matter. Applicant respectfully rewrites claim 3 in its independent form including all the limitations of its base claim and the intervening claim. Therefore, Applicant respectfully requests the Examiner to allow claim 3.

Applicant, however, does not acquiesce to any inferences or presumptions drawn from the Examiner’s statement regarding the reasons for allowance.

New Claims

By this Amendment, Applicant adds claims 13-30 in order to provide more varied protection for the invention. Of the newly added claims, claims 13, 16, 19, 27, and 30 are independent.

Independent claim 13 is directed to a control unit and among a number of unique features not taught by the prior art, recites “a speed control part to control a carriage ...and an inertia calculating part to calculate inertia of the carriage.” Independent claim 16 is directed to a

method of controlling a carriage motor, and among a number of unique features not taught by the prior art references cited by the Examiner, positively recites that the object controlled is a carriage. In particular, claim 16 recites: “calculating inertia of a carriage ...”

The Examiner indicated that the canceled claim 11 contains allowable subject matter because the prior art of record fails to teach or suggest the calculating inertia of a carriage and controlling a carriage, as opposed to an object (see page 7 of the Office Action). In other words, the Examiner acknowledged that the prior art fails to teach or suggest calculating inertia of a carriage and controlling a carriage. Applicant, therefore, respectfully submits that independent claims 13 and 16 are allowable at least because of their recitation of a carriage. In addition, Applicant respectfully submits that claims 14 and 15 are patentable at least by virtue of their dependency on claim 13 and that claims 17 and 18 are patentable at least by virtue of their dependency on claim 16.

Next, independent claims 19, 27, and 30, among a number of unique features not taught by the prior art, recite: “an inertia calculating part to calculate inertia of the object based on angular acceleration of the motor under the deceleration control of the object, and current values to be applied to the motor under the deceleration control and the constant speed control of the object, during the deceleration control after a printing processing is completed, the calculated inertia being used by the speed control part for controlling the current to be applied to the motor.”

Applicant respectfully points out that both Teshima and Hayashida fails to teach or suggest a printing process. Teshima teaches a numerical control unit for controlling the position of movable part, and Hayashida teaches positioning an electric motor. But both references fail to

teach or suggest a printing process, as acknowledged by the Examiner (pages 4 and 8 of the Office Action). Moreover, both references fail to teach or suggest deceleration control after a printing process is completed. Applicant, therefore, respectfully submits that independent claims 19, 27, and 30 are allowable at least because of their recitation of “during deceleration control after a printing process is completed, the calculated inertia being used by the speed control part for controlling the current to be applied to the motor.” In addition, Applicant respectfully submits that claims 20-26 are patentable at least by virtue of their dependency on claim 19 and that claims 28 and 29 are patentable at least by virtue of their dependency on claim 27.

Conclusion and request for telephone interview


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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